

MOBILE IRRIGATION POWER UNITS

Full Line Brochure

SPECIFICATIONS

Tiers

Tier 4
Remanufactured RP Family
Remanufactured RPZ Family
Natural Gas/Propane
Tier 3 (Previous Production Units)

Warranty

Diesel Powered:
2 year / 2,000 hour
(whichever occurs first)

Natural Gas/Propane:
1 year / 2,500 hour
(whichever occurs first)



QUICK REFERENCE GUIDE TO IPUS

A QUICK REFERENCE GUIDE TO IRRIGATION POWER UNITS

Introduction/IPU Trailers/Power Unit Models	2-3	Tier 3 Power Units	12-13
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FIELD TESTED. FIELD READY.

We know that efficiently getting water out to your fields when the weather gets dry is critical for maximum yields. That’s why New Holland offers a full line of mobile irrigation power units (IPUs) to deliver optimum power for every application. We even offer a trailer solution specifically for your New Holland IPU to make moving it around your property easy. All units are original equipment manufacturer (OEM) designed, tested and manufactured, and offer a combination of quality, value, and warranty that few can match.

From diesel to natural gas, low to high horsepower, whatever your need, this quick reference guide can help you determine the best option. Each unit comes with standard features, but customization is also available through a wide variety of add-on accessories. New Holland also offers trailers to match up with your IPU for easy mobility.

Contact your New Holland dealer for more information. Regular oil changes and required maintenance checks at your New Holland dealer will help you maintain your unit. Also, see your dealer to order OEM and remanufactured repair parts.

TRAILER OPTIONS FOR IMPROVED MOBILITY – IPU375

New Holland and Thunder Creek have developed a trailer solution specifically for New Holland IPUs to help you get more done.

With excellent weight distribution for easy trailering and customizable mounting rails for your IPU in 2" increments, these trailers come standard with electric brakes, three stabilizer jacks, and P75R-16 10-ply tires.

The 375-gallon fuel tank and the 60-gallon DEF tank (optional) provide sufficient fuel and DEF to operate your IPU for extended, uninterrupted hours.

Trailer options include with or without DEF tank and your choice of black or gray.

Contact your local New Holland dealer for pricing and more information.



POWER UNIT MODELS: WHICH POWER UNIT IS RIGHT FOR YOU?

Below is a list of our assortment of power units available. For a more thorough explanation for determining your power needs, see pages 18-19.

TIER 4	REMANUFACTURED FAMILY YOUR OLD CORE UNIT HAS VALUE!*		NATURAL GAS
101 – 168 hp	67 – 164 hp	71 – 143 hp	67 – 160 hp
100A, 120A, 150A, 170A	RP65, RP85, RP110, RP135, RP165	RPZ65, RPZ85, RPZ125, RPZ145	F101094, F101095, F101096, F101097, F101098**, F101099**
			
FPT POWER	CUMMINS POWER		NATURAL GAS
FUEL-EFFICIENT – ELECTRONIC INJECTION	MECHANICAL INJECTION		ALTERNATE FUEL

* Core credit available: \$5,000 for RP65-RP110 HP, and \$5,500 for RP135 & RP165 HP. Prices subject to change without notice. Call dealer for core values on RPZ units.

** Remanufactured engine

MACHINE	100A	120A	150A	170A	S70	S85	S110	S140	S170	S215	S240	RPZ65	RPZ85	RPZ125	RPZ145	RP65	RP85	RP110	RP135	RP165	F101094	F101095	F101096	F101097	F101098	F101099
GROSS RATED HP	101	119	148	168	89	99	125	154	172	211	235	71	86	128	143	67	84	110	129	164	160	160	67	80	127	147
FPT	•	•	•	•	•	•	•	•	•	•	•															
Cummins												•	•	•	•	•	•	•	•	•						
GM Vortec																						•	•	•	•	•
SRC																					•					
FUEL																										
Diesel/Gas	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
Natural Gas																					•	•	•	•	•	•
Requires DEF	•	•	•	•																						
WARRANTY																										
2 yr/2,000 hr	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•						
1 yr/2,500 hr																					•	•	•	•	•	•
APPLICATION																										
Orchard	•	•			•	•						•	•			•	•									
Wind Tower					•	•						•	•			•	•									
Shallow Well	•	•	•	•	•	•	•	•	•					•	•			•	•	•	•	•	•	•	•	•
Deep Well										•	•															

TIER 4 POWER UNIT SPECIFICATIONS / DIMENSIONS & WEIGHTS

MACHINE	100A	120A	150A
Engine Model	F4HFE413M*A005	F4HFE413D*A008	F4HFE413A*A005
Part Number	47539756	47539757	47539759
Engine Type 	FPT 4-cylinder, in line, 4 valve, turbocharged, air-to-air cooled, electronic common rail injection	FPT 4-cylinder, in line, 4 valve, turbocharged, air-to-air cooled, electronic common rail injection	FPT 4-cylinder, in line, 4 valve, turbocharged, air-to-air cooled, electronic common rail injection
Engine Displacement	274 cu in (4.5 liters)	274 cu in (4.5 liters)	274 cu in (4.5 liters)
Bore and Stroke	4.09 × 5.20 in (104 × 132 mm)	4.09 × 5.20 in (104 × 132 mm)	4.09 × 5.20 in (104 × 132 mm)
Compression Ratio	17:1	17:1	17:1
Fuel Consumption BSFC (2,200 rpm)	0.371 lb/hp-hr (225 g/kW-hr)	0.360 lb/hp-hr (219 g/kW-hr)	0.363 lb/hp-hr (221 g/kW-hr)
High Idle Speed	2,375 rpm ±50	2,375 rpm ±50	2,375 rpm ±50
Low Idle Speed	800 rpm ±50	800 rpm ±50	800 rpm ±50
Gross Rated Power (2,200 rpm)	101 hp (75 kw)	119 hp (89 kw)	148 hp (110 kw)
Gross Rated Torque (2,200 rpm)	240 lb-ft (326 Nm)	284 lb-ft (385 Nm)	351 lb-ft (476 Nm)
Nominal Max Torque	348 lb-ft (472 Nm) @ 1,400 rpm	406 lb-ft (551 Nm) @ 1,500 rpm	495 lb-ft (671 Nm) @ 1,500 rpm
Overall Height	73 in (1,854 mm)	73 in (1,854 mm)	73 in (1,854 mm)
Overall Width	39 in (990 mm)	39 in (990 mm)	39 in (990 mm)
Overall Length	58 in (1,473 mm)	58 in (1,473 mm)	58 in (1,473 mm)
Weight	2,100 lb (953 kg)	2,100 lb (953 kg)	2,100 lb (953 kg)

FEATURES / BENEFITS

New Holland mobile Tier 4 IPU's offer a combination of quality, value, availability and warranty that few can match. Certified to Tier 4 EPA, CARB & Stage 4 EU Emissions Standards.

- Internally balanced engine for smooth operation
- Industry-proven SCR (Selective Catalytic Reduction) system with 11-gallon DEF (Diesel Exhaust Fluid) tank included
- Complete electronic engine and after-treatment control for maximum efficiency and performance
- Digital control panel enables precise control and diagnostic capability
- Removable front grill screen provides effortless cooler cleaning
- Convenient maintenance with a side oil fill and easy access to drain plugs and all filters
- Auto shut down for low oil pressure, low coolant level, high coolant temperature and oil level (optional)
- Steel battery tray and battery cables included
- 24 V starter; 28 V, 70 amp alternator

FACTORY INSTALLED OPTIONS	PART NUMBER
PTO (11.5" Single Disc, 2.25" Shaft) See page 9 for allowable PTO side loads.	87421200P
Automatic Oil Level Shutdown	47709184P
Double "B" Groove Crank Shaft Pulley	87298704P
Removable/Lockable Side Panels	47709137P

ADD-ON DEALER-INSTALLED ACCESSORIES	PART NUMBER
Driveshaft	73340124
Drive Hub	73340122
Battery 600CCA (2 required)	F790DSW (US) CF790DSW (CAN)
Double "B" Groove Crankshaft Pulley (5/8" wide belt)	87298704
PTO (11.5" Single Disc, 2.25" Shaft)	87421200
Automatic Oil Level Shutdown	47709184
Removable/Lockable Side Panel (2 required)	47685846

170A

F4HFE413L*A007

47539760

FPT 4-cylinder, in line, 4 valve,
turbocharged, air-to-air cooled,
electronic common rail injection

274 cu in (4.5 liters)

4.09 × 5.20 in (104 × 132 mm)

17:1

0.353 lb/hp-hr (214 g/kW-hr)

2,375 rpm ±50

800 rpm ±50

168 hp (125 kw)

401 lb-ft (543 Nm)

515 lb-ft (698 Nm) @ 1,500 rpm

73 in (1,854 mm)

39 in (990 mm)

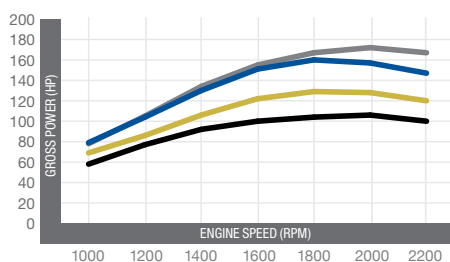
58 in (1,473 mm)

2,100 lb (953 kg)

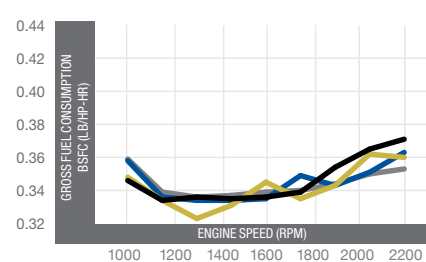


GROSS HORSEPOWER, FUEL CONSUMPTION & TORQUE

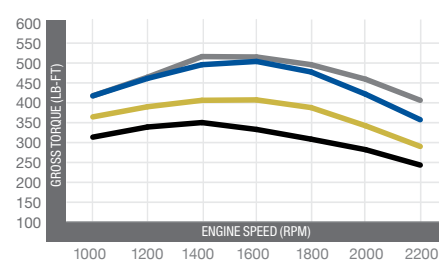
Gross Horsepower



Gross Fuel Consumption

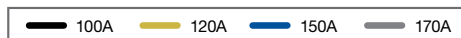


Gross Torque



Note: For continuous operation, reduce power and torque values by 20%.

Tier 4 Power Unit Curve Letter Legend



REMANUFACTURED RP FAMILY SPECIFICATIONS / DIMENSIONS & WEIGHTS

MACHINE	RP65	RP85	RP110
Original IPU Model	4391	4391T	4391TA
Part Number	47592892R	47592912R	47592916R
Engine Type	Remanufactured Cummins 4-cylinder, in line, 4-cycle, naturally aspirated with in-line injection pump	Remanufactured Cummins 4-cylinder, in line, 4-cycle, turbocharged with in-line injection pump	Remanufactured Cummins 4-cylinder, in line, 4-cycle, turbocharged/ aftercooled with in-line injection pump
Engine Displacement	239 cu in (3.9 liters)	239 cu in (3.9 liters)	239 cu in (3.9 liters)
Bore and Stroke	4.02 × 4.72 in (102 × 120 mm)	4.02 × 4.72 in (102 × 120 mm)	4.02 × 4.72 in (102 × 120 mm)
Compression Ratio	19.1:1	17.5:1	17.5:1
Fuel Consumption BSFC (2,200 rpm)	0.398 lb/hp-hr (242 g/kW-hr)	0.397 lb/hp-hr (241 g/kW-hr)	0.371 lb/hp-hr (226 g/kW-hr)
High Idle Speed	2,457 rpm (+/- 49 rpm)	2,457 rpm (+/- 49 rpm)	2,457 rpm (+/- 49 rpm)
Low Idle Speed	950 rpm (+/- 100 rpm)	950 rpm (+/- 100 rpm)	950 rpm (+/- 100 rpm)
Gross Rated Power (2,200 rpm)	67 hp (50 kW)	84 hp (63 kW)	110 hp (82 kW)
Gross Rated Torque (2,200 rpm)	160 lb-ft. (217 Nm)	203 lb-ft. (275 Nm)	263 lb-ft. (356 Nm)
Nominal Max Torque	189 lb-ft (256 Nm) @ 1,200 rpm	254 lb-ft (344 Nm) @ 1,500 rpm	332 lb-ft (450 Nm) @ 1,500 rpm
Overall Height	60 in (1,524 mm)	70.25 in (1,784 mm)	70.25 in (1,784 mm)
Overall Width	30 in (762 mm)	30 in (762 mm)	30 in (762 mm)
Overall Length	61 in (1,549 mm)	61 in (1,549 mm)	61 in (1,549 mm)
Weight: With PTO w/ Rear Hood	1,255 lb (570 kg)	1,280 lb (580 kg)	1,325 lb (600 kg)

FEATURES / BENEFITS

New Holland mobile RP65, RP85, RP110, RP135 and RP165 IPUs deliver optimum power using remanufactured components at a competitive price. The units are reassembled to original OEM specifications, run strictly on diesel by using remanufactured engines and offer quality and reliability that few can match.

Regular oil changes and required maintenance checks at your New Holland dealer will help you maintain your power unit.

Removable Front Screen for Radiator Access and Cleaning



Removable Side Panels for Engine Fan and Radiator Access, Cleaning and Inspection



POWER UNIT STANDARD FEATURES FOR RP & RPZ MODELS

PTO: RP65, RP85, RPZ65, RPZ85 (10" single disc, 2.25" shaft)
PTO: RP110, RP135, RP165, RPZ125, RPZ145 (11.5" single disc, 2.25" shaft)

Removable Front Screen for Radiator Access and Cleaning

Completely ISO-Mounted Engine for Smooth Operation

Removable Side Panels for Engine Fan and Radiator Cleaning and Inspection

Fan Guards for Operator Protection

Radial Air Cleaner for Quick Air Filter Maintenance

Large, Easy-to-Read Instrumentation Panel Includes: Oil Pressure Gauge w/ Low-Pressure Shutdown, Coolant Temperature Gauge w/ High-Temperature Shutdown, Volt Meter, Tachometer w/ Digital Hour Meter, Emergency Shutdown Button, Dual Electrical Connection Posts for Convenient Addition of Shut Down Devices

Starter: 12-Volt

Alternator: 14-Volt, 65-Amp

Remote Mount Battery Tray and Hold Down

Removable Panel for Belt Access From Side Mounted Generator to the Double Crankshaft Pulley (if equipped)

Skid with Fork Pockets for Easy Portability of the Power Unit

See page 8 for optional add-ons.

WARRANTY
2-year/2,000 hour
 (whichever occurs first)


RP135

6591T

47592920R

 Remanufactured Cummins 6-cylinder,
 in line, 4-cycle, turbocharged with in-line
 injection pump

360 cu in (5.9 liters)

4.02 × 4.72 in (102 × 120 mm)

17.5:1

0.378 lb/hp-hr (230 g/kW-hr)

2,457 rpm (+/- 49 rpm) /

1000 rpm (+/- 100 rpm)

129 hp (96 kW)

304 lb-ft. (412 Nm)

428 lb-ft (580 Nm) @ 1,500 rpm

71.5 in (1,816 mm)

30 in (762 mm)

71.5 in (1,816 mm)

1,524 lb (691 kg)

RP165

6591TA

47592919R

 Remanufactured Cummins 6-cylinder,
 in line, 4-cycle, turbocharged/ after-
 cooled with in-line injection pump

360 cu in (5.9 liters)

4.02 × 4.72 in (102 × 120 mm)

17.5:1

0.370 lb/hp-hr (225 g/kW-hr)

2,457 rpm (+/- 49 rpm) /

1000 rpm (+/- 100 rpm)

164 hp (122 kW)

392 lb-ft. (536 Nm)

531 lb-ft (720 Nm) @ 1,600 rpm

71.5 in (1,816 mm)

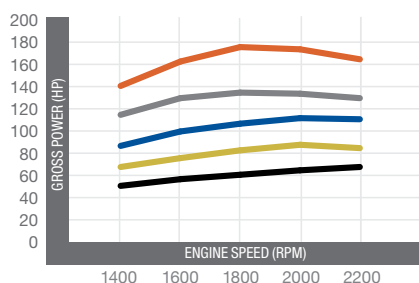
30 in (762 mm)

71.5 in (1,816 mm)

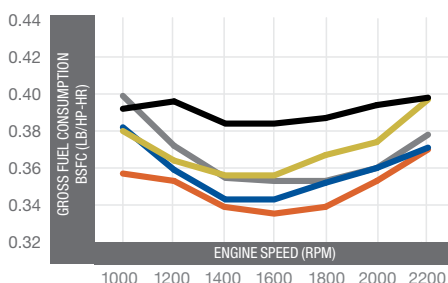
1,569 lb (712 kg)

GROSS HORSEPOWER, FUEL CONSUMPTION & TORQUE

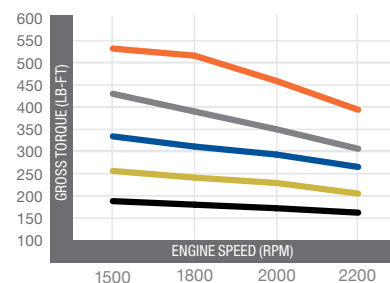
Gross Horsepower



Gross Fuel Consumption



Gross Torque



Note: For continuous operation, reduce power and torque values by 20%.

Remanufactured RP Power Unit Curve Letter Legend

— RP65
 — RP85
 — RP110
 — RP135
 — RP165

REMANUFACTURED RPZ FAMILY SPECIFICATIONS / DIMENSIONS & WEIGHTS

MACHINE	RPZ65	RPZ85	RPZ125
Original IPU Model	4390	4390T	6590T
Part Number	47667187R	47667188R	47667189R
Engine Type	Remanufactured Cummins 4-cylinder, in line, 4-cycle, naturally aspirated with rotary type injection pump	Remanufactured Cummins 4-cylinder, in line, 4-cycle, turbocharged with rotary type injection pump	Remanufactured Cummins 6-cylinder, in line, 4-cycle, turbocharged with rotary type injection pump
Engine Displacement	239 cu in (3.9 liters)	239 cu in (3.9 liters)	360 cu in (5.9 liters)
Bore and Stroke	4.02 × 4.72 in (102 × 120 mm)	4.02 × 4.72 in (102 × 120 mm)	4.02 × 4.72 in (102 × 120 mm)
Compression Ratio	17:1	17.5:1	17.5:1
Fuel Consumption BSFC (2,200 rpm)	0.375 lb/hp-hr (228 g/kW-hr)	0.355 lb/hp-hr (216 g/kW-hr)	0.350 lb/hp-hr (213 g/kW-hr)
High Idle Speed	N/A	N/A	N/A
Low Idle Speed	1,000 ± 100 rpm	1,000 ± 100 rpm	1,000 ± 100 rpm
Gross Rated Power (2,200 rpm)	71 hp (53 kW)	86 hp (64 kW)	128 hp (95 kW)
Gross Rated Torque (2,200 rpm)	167 lb-ft (226 Nm)	N/A	301 lb-ft (408 Nm)
Nominal Max Torque	193 lb-ft (262 Nm) @ 1,300 rpm	236 lb-ft (320 Nm) @ 1,400 rpm	368 lb-ft (499 Nm) @ 1,300 rpm
Overall Height	60 in (1,524 mm)	70.25 in (1,784 mm)	71.50 in (1,816 mm)
Overall Width	30 in (762 mm)	30 in (762 mm)	30 in (762 mm)
Overall Length	61 in (1,549 mm)	61 in (1,549 mm)	71.50 in (1,816 mm)
Weight: With PTO w/ Rear Hood	1,255 lb (570 kg)	1,280 lb (580 kg)	1,524 lb (691 kg)

FEATURES / BENEFITS

New Holland mobile RPZ65, RPZ85, RPZ125 and RPZ145 IPU's deliver optimum power using remanufactured components at a competitive price. The units are reassembled to original OEM specifications, run strictly on diesel by using remanufactured engines and offer quality and reliability that few can match.

To make your IPU even more productive and versatile, trailer options are available on page 2.

Removable Front Screen for Radiator Access and Cleaning



Removable Side Panels for Engine Fan and Radiator Access, Cleaning and Inspection



ADD-ON DEALER-INSTALLED ACCESSORIES FOR RP & RPZ MODELS	PART NUMBER
Driveshaft: RP65, RPZ65, RP85, RPZ85, RP110, RPZ125, RP135, RPZ145, RP165	73340124
Driveshaft Hub (2.25 in PTO Shaft): RP65, RPZ65, RP85, RPZ85, RP110, RPZ125, RP135, RPZ145, RP165	73340122
Battery 950CCA	F770DSW (US) CF770DSW (CAN)
Double Groove Crankshaft Pulley (1/2 in or 5/8 in wide belt): RP65, RPZ65, RP85, RPZ85, RP110, RPZ125, RP135, RPZ145, RP165	J907982
Low Engine Oil Level Shutdown: RP65, RPZ65, RP85, RPZ85, RP110, RPZ125, RP135, RPZ145, RP165	1347738C1
Battery Cables (Includes One Positive and One Negative)	87299127

See page 6 for standard features.

RPZ145

6590TA

47667191R

 Remanufactured Cummins 6-cylinder,
 in line, 4-cycle, turbocharged/aftercooled
 with rotary type injection pump

360 cu in (5.9 liters)

4.02 × 4.72 in (102 × 120 mm)

16.5:1

0.350 lb/hp-hr (213 g/kW-hr)

N/A

1,000 ± 100 rpm

143 hp (106 kW)

341 lb-ft (462 Nm)

421 lb-ft (571 Nm) @ 1,500 rpm

71.50 in (1,816 mm)

30 in (762 mm)

71.50 in (1,816 mm)

1,569 lb (712 kg)


WARRANTY
2-year/2,000 hour
 (whichever occurs first)

ALLOWABLE SIDE-PULL LOADS – FOR STANDARD POWER TAKE OFFS

The following general information should be used for determining the actual applied load.

$$L = \frac{126,000 \times \text{HP}}{N \times D} \times F$$

Where:

L = Actual applied load (lbs)

N = Shaft speed (rev/min)

D = Pitch dia. of sheave (in)

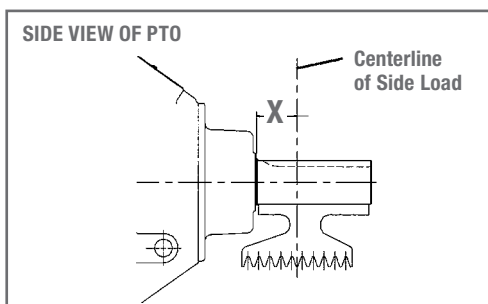
F = Load factor

1.0 For chain or gear drive

2.5 For all v-belt drives

3.5 For flat belt

NOTE: If the PTO is driving a large-inertia load or high-shock application, multiply the load by two.

SIDE VIEW OF PTO

MAXIMUM ALLOWABLE SIDE LOAD (LBS)

		Distance of "X" Value in Illustration to the Left				
Clutch Size	rpm	1 in	2 in	3 in	4 in	5 in
RP65, RPZ65, RP85 & RPZ85						
10.0 in 1 Plate	1,000	2,470	2,190	1,730	1,430	1,216
10.0 in 1 Plate	1,500	2,420	2,190	1,730	1,430	1,216
10.0 in 1 Plate	2,000	2,230	2,070	1,730	1,430	1,216
RP110, RPZ125, RP135, RPZ145, RP165, P70-P170, 100A-170A						
11.5 in 1 Plate	1,000	2,790	2,600	2,240	1,840	1,570
11.5 in 1 Plate	1,200	2,630	2,450	2,240	1,840	1,570
11.5 in 1 Plate	1,800	2,330	2,170	2,030	1,840	1,570
11.5 in 1 Plate	2,400	2,140	1,990	1,865	1,750	1,570
S215 & S240						
11.5 in 2 Plates	1,000	4,540	3,395	2,710	2,555	1,930
11.5 in 2 Plates	1,200	4,370	3,395	2,710	2,555	1,930
11.5 in 2 Plates	1,800	3,900	3,395	2,710	2,555	1,930
11.5 in 2 Plates	2,400	3,550	3,395	2,710	2,555	1,930

NOTE: Actual applied load must be less than the maximum allowable side load.

NATURAL GAS/PROPANE POWER UNIT SPECIFICATIONS/DIMENSIONS & WEIGHTS

MACHINE	F101094	F101095	F101096
Engine Model	466TA Radiator IPU	466TA Surge Tank IPU	4.3L IPU
Part Number	F101094	F101095	F101096
Engine Type	466TA I6	466TA I6	4.3L V6
Engine Displacement	466 cu in (7.6 liters)	466 cu in (7.6 liters)	262 cu in (4.3 liters)
Bore and Stroke	4.3 x 5.53 in (109.2 x 140.5 mm)	4.3 x 5.53 in (109.2 x 140.5 mm)	4.0 x 3.5 in (101.6 x 88.9 mm)
Compression Ratio	8.5:1	8.5:1	9.4:1
Fuel Consumption (1,800 rpm, 100% load)	1,676 cu ft/hr	1,676 cu ft/hr	475 cu ft/hr
High Idle Speed	2,300 rpm	2,300 rpm	2,400 rpm
Low Idle Speed	1,000 rpm	1,000 rpm	1,000 rpm
Rated Power (1,800 rpm)	160 hp (119 kW)	160 hp (119 kW)	67 hp (50 kW)
Rated Torque (1,800 rpm)	466 lb-ft (632 Nm)	466 lb-ft (632 Nm)	195 lb-ft (264 Nm)
Nominal Max Torque	N/A	N/A	N/A
Overall Height	62 in (1,575 mm)	62 in (1,575 mm)	46 in (1,168 mm)
Overall Width	46 in (1,168 mm)	46 in (1,168 mm)	39 in (991 mm)
Overall Length	80 in (2,032 mm)	80 in (2,032 mm)	48 in (1,219 mm)
Overall Weight	2,295 lb (1,041 kg)	2,295 lb (1,041 kg)	1,050 lb (476 kg)

Note: All ratings are on natural gas fuel.

FEATURES/BENEFITS

Natural Gas Powered Irrigation Power Units offer your customers an alternative fuel source that is “greener” and can be less expensive to operate than diesel. In this modern energy boom in North America, more natural gas supplies are coming online, further driving down the costs. For even more flexibility, these units can be converted to LP by simply installing an inexpensive conversion kit. This added feature gives a producer tremendous flexibility to switch between fuels depending on supply base and prices.

We offer a wide range of natural gas powered IPU's ranging from 67 horsepower to 160 horsepower. The offering includes both EPA emission certified and non-certified irrigation power units. Two remanufactured natural gas IPU's are also available. Choose with or without silver metallic sheet metal.

NATURAL GAS POWER UNIT STANDARD FEATURES

Radiator

Electronic Governor

Murphy Oil Shutdown

Low Coolant Shutdown

Fan Guards for Operator Protection

Battery Tray and Cables

ASCO Valve

Heat-Trace Lines

Over Flow Bottle

Oil Drain Valve

Analog Panel (tachometer w/hour meter, oil pressure, volt meter, coolant temperature & lever ignition switch)

Built In Skid for Mobility

F101097	F101098	F101099
5.7L IPU	Remanufactured 7.4L IPU	Remanufactured 8.0L IPU
F101097	F101098	F101099
5.7L V8	7.4L V8	8.0L V8
350 cu in (5.7 liters)	454 cu in (7.4 liters)	490 cu in (8.0 liters)
4.0 x 3.5 in (101.6 x 88.9 mm)	4.25 x 4.0 in (107.9 x 101.6 mm)	4.28 x 4.25 in (108.7 x 107.9 mm)
9.4:1	8.54:1	9.02:1
654 cu ft/hr	823 cu ft/hr	908 cu ft/hr
2,400 rpm	2,400 rpm	2,400 rpm
1,000 rpm	1,000 rpm	1,000 rpm
80 hp (60 kW)	127 hp (95 kW)	147 hp (110 kW)
233 lb-ft (316 Nm)	370 lb-ft (502 Nm)	428 lb-ft (580 Nm)
N/A	N/A	N/A
48 in (1,219 mm)	48 in (1,219 mm)	48 in (1,219 mm)
39 in (991 mm)	39 in (991 mm)	39 in (991 mm)
53 in (1,346 mm)	53 in (1,346 mm)	53 in (1,346 mm)
1,120 lb (508 kg)	1,292 lb (586 kg)	1,292 lb (586 kg)



Non-certified IPU's will be labeled and include paperwork with the following statement. (It is the end-user's responsibility to ensure all regulatory requirements are met.) **This engine is excluded from the requirements of 40 CFR part 1048 as a "stationary engine" and the owner/operator must comply with the requirements of 40 CFR part 60. Installing or using this engine in any other application may be a violation of federal law subject to civil penalty.**

Contact your local New Holland dealer for more information.



Actual product may vary from product shown.

TIER 3 POWER UNIT SPECIFICATIONS / DIMENSIONS & WEIGHTS

New Holland mobile Tier 3 IPU's are OEM designed, tested and manufactured. They offer a combination of quality, value, availability and warranty that few can match. Factory-tested before shipment to ensure optimum quality and performance, these IPU's meet Tier 3 EPA, CARB & EU emissions standards. They also have a field-proven powder-coat paint finish to protect against fading and damage from outside elements.

Standard features include, but are not limited to:

- Side-mounted, rodent-proof control panel that can be easily removed and remounted to meet your specific requirements.
- Coolant temperature and level shutdown
- Low oil pressure shutdown
- 12 V starter; 14 V, 90 amp alternator

Regular oil changes and required maintenance checks at your New Holland dealer will help you maintain your power unit. Your dealer can also supply OEM repair parts.

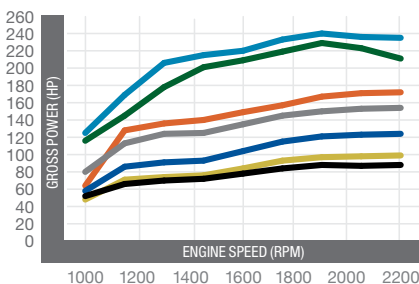


MACHINE	S215	S240
Engine Model	F4HE9684S*J101	F4HE9684P*J102
Part Number w/PTO, w/Hood	84126037	84126041
Part Number w/PTO, w/o Hood	84126038	84126042
Part Number w/o PTO, w/Hood	84604471	84604473
Part Number w/o PTO, w/o Hood	84604472	84604474
Engine Type 	FPT 6-cylinder diesel, in-line, 4 valve, turbo-charged/charge air-cooled (electronic common rail injection)	FPT 6-cylinder diesel, in-line, 4 valve, turbocharged/charge air-cooled (electronic common rail injection)
Engine Displacement	411 cu in (6.7 liters)	411 cu in (6.7 liters)
Bore and Stroke	4.09 x 5.20 in (104 x 132 mm)	4.09 x 5.20 in (104 x 132 mm)
Compression Ratio	16.5:1	16.5:1
Fuel Consumption BSFC (2,200 rpm)	0.368 lb/hp-hr (224 g/kW-hr)	0.363 lb/hp-hr (221 g/kW-hr)
High Idle Speed	2350 rpm +/- 50 rpm	2350 rpm +/- 50 rpm
Low Idle Speed	800 rpm +/- 50 rpm	800 rpm +/- 50 rpm
Gross Rated Power (2,200 rpm)	211 hp (157 kW)	235 hp (175 kW)
Gross Rated Torque (2,200 rpm)	504 lb-ft. (684 Nm)	560 lb-ft. (759 Nm)
Nominal Max Torque	687 lb-ft. (931 Nm) @ 1,600 rpm	753 lb-ft. (1,021 Nm) @ 1,500 rpm
Overall Height	75 in (1,905 mm)	75 in (1,905 mm)
Overall Width	36.1 in (918 mm)	36.1 in (918 mm)
Overall Length	79.5 in (2,019 mm)	79.5 in (2,019 mm)
Weight w/PTO, w/Hood	1,759 lb (797 kg)	1,759 lb (797 kg)

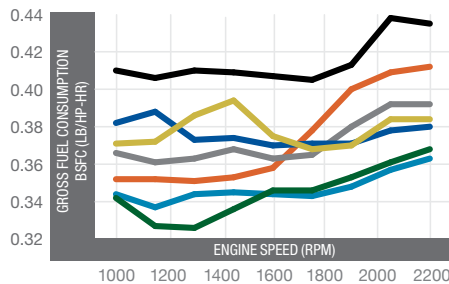
High hp Models S215 and S240 available at your local New Holland dealer!

GROSS HORSEPOWER, FUEL CONSUMPTION & TORQUE

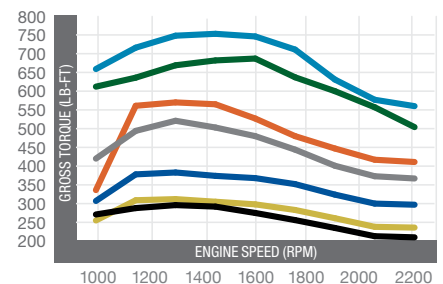
Gross Horsepower



Gross Fuel Consumption



Gross Torque



Note: For continuous operation, reduce power and torque values by 20%.

Tier 3 Power Unit Curve Letter Legend



Limited Quantity in Dealer Inventory! – See Your Local New Holland Dealer for Details

MACHINE	S70	S85	S110	S140	S170
Engine Model	F4GE9454J*J605	F4GE9484F*J610	F4GE9484D*J607	F4GE9684H*J600	F4GE9684A*J603
Part Number w/PTO, w/Hood	84126019	84126028	87588584	84250891	87588589
Part Number w/PTO, w/o Hood	84126020	84126029	87588587	84250892	87588592
Part Number w/o PTO, w/Hood	84126021	84126033	87588586	84250893	87588594
Part Number w/o PTO, w/o Hood	84126022	84126034	87588588	84250894	87588595
Engine Type 	FPT 4-cylinder diesel, 2 valve, turbocharged/charge air-cooled (with rotary injection pump) internally balanced	FPT 4-cylinder diesel, 2 valve, turbocharged/charge air-cooled (with rotary injection pump) internally balanced	FPT 4-cylinder diesel, 2 valve, turbocharged/charge air-cooled (with rotary injection pump) internally balanced	FPT 6-cylinder diesel, 2 valve, turbocharged/charge air-cooled (with rotary injection pump)	FPT 6-cylinder diesel, 2 valve, turbocharged/charge air-cooled (with rotary injection pump)
Engine Displacement	274 cu in (4.5 liters)	274 cu in (4.5 liters)	274 cu in (4.5 liters)	411 cu in (6.7 liters)	411 cu in (6.7 liters)
Bore and Stroke	4.09 x 5.20 in (104 x 132 mm)	4.09 x 5.20 in (104 x 132 mm)	4.09 x 5.20 in (104 x 132 mm)	4.09 x 5.20 in (104 x 132 mm)	4.09 x 5.20 in (104 x 132 mm)
Compression Ratio	17.5:1	17.5:1	17.5:1	17.5:1	17.5:1
Fuel Consumption BSFC (2,200 rpm)	0.435 lb/hp-hr (265 g/kW-hr)	0.384 lb/hp-hr (234 g/kW-hr)	0.380 lb/hp-hr (231 g/kW-hr)	0.392 lb/hp-hr (238 g/kW-hr)	0.412 lb/hp-hr (251 g/kW-hr)
High Idle Speed	2430 rpm +/- 50 rpm	2430 rpm +/- 50 rpm	2430 rpm +/- 50 rpm	2430 rpm +/- 50 rpm	2430 rpm +/- 50 rpm
Low Idle Speed	800 rpm +/- 50 rpm	800 rpm +/- 50 rpm	800 rpm +/- 50 rpm	800 rpm +/- 50 rpm	800 rpm +/- 50 rpm
Gross Rated Power (2,200 rpm)	89 hp (66 kW)	99 hp (74 kW)	125 hp (93 kW)	154 hp (115 kW)	172 hp (128 kW)
Gross Rated Torque (2,200 rpm)	210 lb-ft. (285 Nm)	236 lb-ft. (319 Nm)	297 lb-ft. (402 Nm)	367 lb-ft. (497 Nm)	411 lb-ft. (557 Nm)
Nominal Max Torque	296 lb-ft. (401 Nm) @ 1,250 rpm	312 lb-ft. (423 Nm) @ 1,250 rpm	383 lb-ft. (519 Nm) @ 1,250 rpm	521 lb-ft. (706 Nm) @ 1,250 rpm	570 lb-ft. (773 Nm) @ 1,250 rpm
Overall Height	64.0 in (1,626 mm)	63.4 in (1,611 mm)	63.3 in (1,609 mm)	65.3 in (1,659 mm)	65.3 in (1,659 mm)
Overall Width	41.7 in (1,059 mm)	45.5 in (1,157 mm)	43.6 in (1,177 mm)	45.6 in (1,157 mm)	45.6 in (1,157 mm)
Overall Length	64.7 in (1,643 mm)	63.9 in (1,623 mm)	64.1 in (1,626 mm)	74.5 in (1,891 mm)	74.5 in (1,891 mm)
Weight w/PTO, w/Hood	1,405 lb (637 kg)	1,428 lb (648 kg)	1,502 lb (681 kg)	1,759 lb (797 kg)	1,759 lb (797 kg)

Limited quantities in dealer inventory on Models S70, S85, S110, S140 and S170.

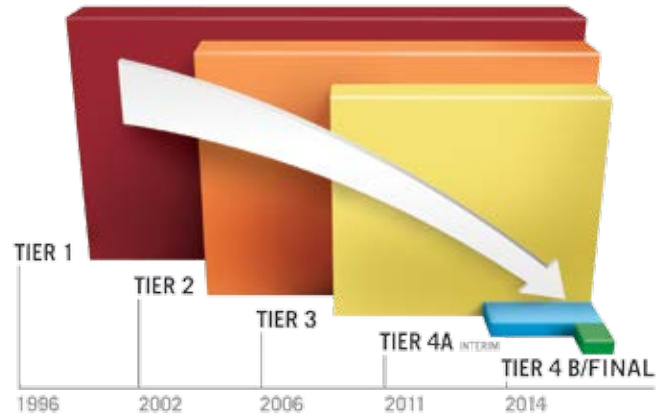
ADD-ON DEALER INSTALLED ACCESSORIES

DESCRIPTION	PART NUMBER	DESCRIPTION	PART NUMBER
Driveshaft: S70, S85, S110, S140 & S170	73340124	Double "B" Groove Crankshaft Pulley (5/8" wide belt): S140, S170, S215 & S240	47460584
Driveshaft: S215 & S240	73340125		
Drive Hub: S70, S85, S110, S140 & S170	73340122	PTO (11.5" Single Disc, 2.25" Shaft): S70, S85, S110, S140 & S170	87421200
Drive Hub: S215 & S240	73340123	PTO (11.5" Double Disc, 2.5" Shaft): S215 & S240	1998868C1
Side Oil Fill Kit: 70-170	87471919	See page 9 for allowable PTO side loads.	
Oil Level Shut Down: 70-170	87708245	Rear Hood: S70, S85 & S110	87711474
		Rear Hood: S140 & S170	87708287
Battery 950CCA	F770DSW (US) CF770DSW (CAN)	Rear Hood: S215 & S240	47485389
Double "A" Groove Crankshaft Pulley (1/2" wide belt): S140, S170, S215 & S240	4897928	Battery Cables (One Positive and One Negative)	87299127
Double "B" Groove Crankshaft Pulley (5/8" wide belt): S70, S85, S110	2852223	Steel Battery Tray – S70, S85, S110	87299125
		Steel Battery Tray – S140 & S170	87299126
		Battery Hold Kit: S70-S170	47498726

CLEANER ENGINE = CLEANER ENVIRONMENT

Creating a cleaner environment has been an ongoing process since the emission regulations were enacted in 1996. Since then, standards have continued to be raised and are now at Tier 4 B/Final. These regulations cover two types of pollutants:

- Particulate Matter (PM)
- Nitrogen Oxide (NOx)

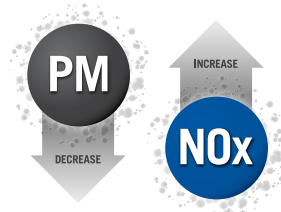


EPA allowable levels of emissions (PM/NOx).
Off-Road Diesel Engine Compliance Effective Dates 174 – 750 hp Chart Shown

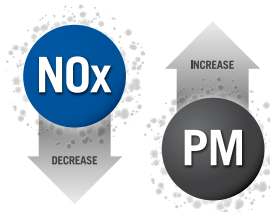
Source: Case IH Efficient Power Brochure, CIH07171301

WHY TRADE OFF IS NECESSARY.

Inside the combustion chamber, PM and NOx have conflicting chemical factors.



When the engine is operating most efficiently with peak power, PM is minimized or eliminated. However, the NOx levels grow.



When engine temperatures are cooled and NOx production is managed, higher levels of PM are created.

No diesel engine can meet both standards without the use of after-treatment systems.

FINAL STAGE MEANS CLEANER ENGINES.

After successfully implementing the first steps of the European and US emission reduction regulations, the use of exhaust aftertreatment will now become necessary for some diesel engine manufacturers. Regulations for the systematic reduction of pollutants in the exhaust of diesel engines have been in force in Europe and the USA since 1996, and the final and fourth stage involves the reduction of complex exhaust emission. Meeting the new standard will involve innovative measures in engine design, fuel injection, combustion and turbocharging technology. New Holland is ready with engines designed to be better for the environment and more powerful and fuel-efficient for consumers.

WHAT IS SCR TECHNOLOGY?

Selective Catalytic Reduction (SCR) is a simple system that treats exhaust gases with urea, or Diesel Exhaust Fluid (DEF), to eliminate pollutants. It allows for maximum engine power.

SCR uses DEF to ensure:

- Particulate Matter (PM) is burned during the combustion process
- Nitrogen Oxides (NOx) are reduced after combustion

WHY SCR?

- Higher power density achievable with same turbo technology
- Less engine variants
- Lower fuel consumption
- Lower heat rejection (~30%)
- Minor impact on vehicle architecture (installation / cooling)
- Longer maintenance interval
- No sensitivity to fuel quality

EGR (EXHAUST GAS RECIRCULATION)

Another type of aftertreatment is called Exhaust Gas Recirculation (EGR). This method recirculates exhaust back into the engine to reduce combustion peak temperature and NOx, but limits engine performance.

SCR	VS.	EGR
+ More power – Engine is tuned for maximum horsepower and responsiveness		+ No additional fluid – Does not require DEF
+ Fuel Economy – Substantial improvement in fuel efficiency due to fine-tuning combustion process		– Larger Engine Cooling Package – Recirculated hot exhaust puts more demands on cooling system, particularly on large engines under high-duty cycles
+ Reliability/Durability – Easier to service with longer service intervals; requires fewer parts and components for exhaust treatment		– Hotter Exhaust – During particulate filter regeneration, exhaust can reach almost 1300°F, nearly twice normal operating exhaust temperatures
– Uses stable, nontoxic DEF – However, additional fluid is needed.		– Greater Complexity – Requires more parts for exhaust treatment
		– Increased Maintenance Cost – EGR increases frequency for required oil changes

INDUSTRY LEADING TECHNOLOGY FROM NEW HOLLAND

COMMITTED TO SOLUTIONS

Since the 2011 model year, when the first phase of Tier 4 regulations went into effect, New Holland has been committed to an SCR-only emissions solution. New Holland uses an engine that runs at its best, without modifications or compromise. This engine saves diesel fuel and increases power, and this engine will last longer with less routine maintenance. New Holland went with this technology right from the start – to save you time, money and headaches.

New Holland puts producers first. Proven outstanding fuel efficiency and power is what you've come to expect from our equipment. The same 6.7L engine powering the small frame Genesis® T8 Series tractors can also be found in several irrigation power units, providing the same great technology supported by New Holland.



THE FUTURE OF MOBILE IPU TECHNOLOGY

New Holland has mobile irrigation power units that fit today's precision farming operations. By offering models with various horsepower ranges, fuel types and customizable options, we are offering a complete farming solution. More productive IPUs provide power only when needed for your center pivot irrigation unit. More productivity means better farming for tomorrow.





UTILIZING DIESEL EXHAUST FLUID (DEF)

DEF is not a fuel, or fuel additive. In a Selective Catalytic Reduction (SCR) system, DEF is injected into the tractor exhaust stream through a controlled 'dosing' module, which varies the application rate.

Diesel Exhaust Fluid is:

- Non-hazardous
- Non-polluting
- Non-toxic
- Nonflammable

DEF should be stored in approved containers such as plastic or stainless steel. Approved DEF handling equipment should be used. To maximize shelf life, ideal storage temperature for DEF is between 12° F (-11° C) and 86° F (30° C). However, DEF can be stored outside these temperatures as long as it's rotated on a seasonal basis.

DEF fluid vaporizes NOx emissions and converts them into harmless nitrogen gas and water vapor—natural components of the air we breathe. By moving the emission solution downstream, New Holland is able to tune the engine for power and performance, saving an average of 10% operating cost primarily through enhanced fuel economy. DEF is required on many new diesel pickups and over-the-road trucks, so it is readily available and the price continues to decrease.

DEF STORAGE, HANDLING AND DELIVERY

DEF can be stored in the dedicated tank supplied with the IPU. The DEF tank fill opening is designed to accommodate only a DEF fill nozzle, which ensures that only DEF is pumped into the DEF tank. Standard diesel fuel nozzles do not fit into the DEF tank opening.

But there are other simple and convenient DEF storage and delivery solutions. Your New Holland dealer offers a variety of container and handling options for your farm operation.

FROM TOTES TO TRAILERS. DIESEL EXHAUST FLUID PACKAGES THAT WORK FOR YOU.

2.5 Gallon (9.5L) Container – Part Number R32551

55 Gallon (208L) Drum – Part Number R32552

275 Gallon (1040L) Tote – Part Number R32553

330 Gallon (1250L) Tote – Part Number R32554

The DEF available through your New Holland dealer is a stable and colorless solution. It meets ISO Standards for purity and composition and is an American Petroleum Institute (API) certified diesel exhaust fluid. These are the highest quality and safety standards in place to ensure optimum SCR system performance. Your New Holland dealer also offers a complete line of DEF transfer pumps and meters, including on-farm bulk storage equipment options.

PORTABLE DIESEL EXHAUST FLUID SYSTEM – DTT50



Fits in a truck bed.

Convenient way to transport DEF from Thunder Creek Equipment. This patent-pending 2-in-1 pumping system allows you to fill and empty the portable DEF tank using just one pumping system and fits in a standard truck bed. This closed loop system ensures the purity of the DEF is maintained to protect your equipment and SCR system.

By adding the IPU Autofill Adapter Kit – DTT15, the DTT50 tank system will automatically refill the Tier 4 IPU DEF tank. This means even fewer trips to the field!

Features include:

- 50 gallon poly DEF tank with 14ga steel weather-proof enclosure
- Sight glass level indicator
- 12V DEF pump with 6' power cable
- 20' delivery hose
- Multi-position valve for filling direct from tote and pumping to equipment
- Auto shut off nozzle

Contact your local New Holland dealer for pricing and more information.

DETERMINING WHICH UNIT IS FOR YOU*

POWER REQUIREMENTS

Determining the actual horsepower requirement of the power unit requires that the total dynamic head, the pumping rate, the efficiency of the pump, the drive efficiency, and the type of power unit be known.

To determine total operating or dynamic head, the head requirements for each part of the system must be combined. By definition:

Total Dynamic Head = Total Static Head + Pressure Head + Friction Head + Velocity Head (Figure 1).

Total Static Head – Total static head is the total vertical distance the pump must lift the water. When pumping from a well, this would be the distance from the water level in the well, when the pump is delivering the desired gallonage, to ground level plus the distance the water is lifted from ground level to the discharge point.

Pressure Head – Sprinklers require pressure to operate. Center pivot systems require a certain pressure at the pivot point to distribute the water properly. Note: The pressure in PSI is normally converted to feet of head for calculation purposes (see Table 1). $\text{PSI} \times 2.31 = \text{Head in Feet of Water}$.

Friction Head – Friction head is the loss due to friction when water flows through pipes. Additional friction loss also occurs when water flows through fittings or valves, around corners, or at increases or decreases in pipe size. Values for these losses are obtained from friction loss tables.

Velocity Head – Velocity head is the energy required to initially get water into motion. This is a relatively small amount of energy and is usually negligible when computing losses in an irrigation system.

The useful work done by a pump is called "water horsepower" (WHP) and is calculated as follows:

$$\text{WHP} = \frac{Q \times \text{TDH}}{3960}$$

Q = Discharge in GPM (gallons per minute)

TDH = Total dynamic head in feet

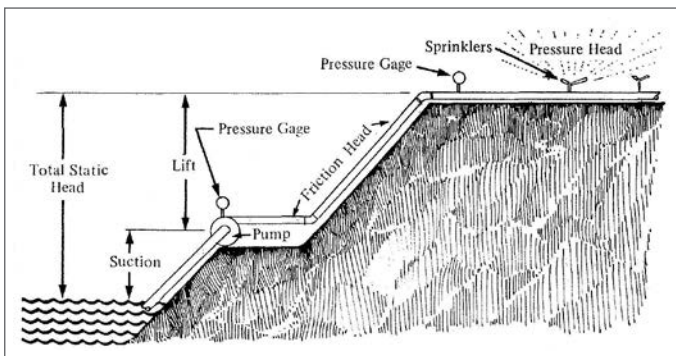


Figure 1. Total dynamic head is the sum of total static head plus friction head plus pressure head. Total dynamic head will equal gauge pressure reading at the pump $\times 2.31$ plus the suction lift. Total dynamic head will also equal gauge pressure reading at the sprinklers $\times 2.31$ plus total static head plus friction head.

*Source: Lundstrom, Darnell R. "Irrigation Power Unit Selection" NDSU Extension Service. February, 1990.

The water horsepower represents the power required to operate the pump if the pump and drive were 100 percent efficient. The brake horsepower (BHP) is the actual horsepower requirement at the drive unit connection and takes pump and drive inefficiencies into consideration. The continuous horsepower rating of the power unit must equal this value. Brake horsepower is calculated as follows:

$$\text{BHP} = \frac{\text{WHP}}{\text{Pump Efficiency} \times \text{Drive Efficiency}}$$

BHP = Brake horsepower
(continuous horsepower rating of power unit which is 20% less than the gross power)

WHP = Water horsepower

ESTIMATING THE ANNUAL COST OF OPERATION

The total cost of operation is a combination of the ownership and operating costs. Ownership costs are those associated with owning the power unit and will remain fixed on an annual basis. Operating costs vary from year to year depending on the amount of annual usage.

1. Ownership Costs

Ownership costs are a combination of depreciation, average interest on investment and insurance. We will use straight line depreciation and assume a zero salvage value. The estimated annual ownership cost can be found by adding the depreciation factor, the insurance factor and the interest factor and multiplying the sum of those factors by the original list price of the power unit. See Tables 1 and 2 to find the required factors.

2. Operating Costs

The annual operating costs are a combination of power cost plus repair and maintenance cost. The repair and maintenance cost can be estimated by multiplying the repair and maintenance factor from Table 1 times the original cost of the power unit. The power cost can be estimated by calculating the energy demand per hour, the hours of operation per year and the cost of energy per gallon or KWH.

POWER UNIT	EXPECTED LIFE (YR)	DEPRECIATION FACTOR	REPAIR AND MAINTENANCE FACTOR	INSURANCE FACTOR
Diesel	15	.067	.06	.005
LP Gas	15	.067	.06	.005
Gasoline	10	.10	.08	.005
Gear Head	20	.05	.03	.005

Table 1. Depreciation, Repair and Maintenance, and Insurance Factors.

AVERAGE INTEREST RATE	INTEREST FACTOR
3%	0.218
4%	0.225
5%	0.231
6%	0.237
7%	0.244
8%	0.250
9%	0.257
10%	0.264

Table 2. Interest Factors (based on 5 yr/60 mo terms). Calculated so that Interest on Investment = (Original Cost – Salvage Value) $\div 2 \times$ Average Interest Cost, with Salvage Cost assumed to be zero.



FINANCE YOUR IPU WITH CNH INDUSTRIAL CAPITAL

We grew up on farms, we've been around worksites and continue to be on the job right along with you. So we have insight into your unique needs, and we share a common goal – your success.

As the captive financial services provider for the CNH Industrial family of brands, we know the equipment you use every day. We're also committed to delivering flexible and easy to use financial products and services that support you and the way you do business so you can focus on productivity, efficiency and maximizing your profits. CNH Industrial Capital and our network of New Holland dealers partner with you beyond just buying equipment, day in and day out we're there, helping you build and grow your success.



CNH Industrial Capital has over 50 years of experience building strong and successful customer relationships. We can help build loan and lease programs to support your specific business goals, and bundle them with comprehensive insurance coverage that gives you complete peace of mind – all in one convenient payment. Our revolving account is an essential tool that allows you to easily manage equipment maintenance expenses to help keep your equipment running at its strongest. And when it's time to assess your equipment needs, we provide a wide range of end-of-term options.

Contact your local New Holland dealer for details or go to www.cnhcapital.com.

